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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/710,780 | 08/02/2004 | Shankar Uluvana Bhat | 030752KEL115 | 4779 |
| 32583 | 7590 | 10/12/2006 | EXAMINER | |
| KELLOGG BROWN & ROOT LLC ATTN: IP LEGAL DEPARTMENT 601 JEFFERSON AVENUE HOUSTON, TX 77002 | | | BEACH, THOMAS A | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3671 | |

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/710,780 | Applicant(s) BHAT ET AL. | |
| | Examiner Thomas A. Beach | Art Unit 3671 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
 4a) Of the above claim(s) 29-42 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 43-54 is/are allowed.
- 6) ☒ Claim(s) 1-14, 16, 17, 19, 22-24 and 26-28 is/are rejected.
- 7) ☒ Claim(s) 15, 18, 20, 21 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-28 and 43-54, drawn to variable riser tensioner, classified in class 166, subclass 350.
 - II. Claims 29-42, drawn to the method of installing risers, classified in class 166, subclass 353.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions since the installation of risers can be for various types of risers.
3. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Daniel Lundeen on 10/2/06 a provisional election was made without traverse to prosecute the invention of I, claims 1-28 and 43-54. Affirmation of this election must be made by applicant in replying to this Office action. Claims 29-42 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Information Disclosure Statement

6. The information disclosure statement filed 08/02/04 (EIDS) fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information disclosure statement has been placed in the application file, but the information referred to therein has not been considered.

Drawings

7. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the vertically drilled

wells and are free of slant must be shown or the feature(s) canceled from the claim(s).

No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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9. Claims 1, 7-14, 16-17, 19, 22-24, 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Cunningham 6,062,769. Cunningham shows an apparatus to communicate with a plurality of subsea wells located at a depth from the surface of a body of water, the apparatus having a floating platform including a dry tree apparatus configured to communicate with and service the subsea wells; and a plurality of variable tension risers comprising a negatively buoyant region 20, a positively buoyant region 18, and a neutrally buoyant region between the negatively and positively buoyant regions, and configured to extend from the wells to the floating platform; wherein the negatively buoyant region hangs below the floating platform and exhibits positive tension, the neutrally buoyant region is located between the negatively and positively buoyant regions and characterized by a curved geometry configured to traverse a lateral offset of at least 300 feet between the floating platform and the subsea well (figs. 2 and 3a), and the positively buoyant region 14 is positioned above the subsea well and exhibits positive tension.

As concerns claim 7, Cunningham shows the plurality of subsea wells comprise vertically drilled wells and are free of slant and horizontally or partially horizontally drilled wells (col. 4, lines 42-57).

As concerns claim 8, Cunningham shows the floating platform is selected from spar platforms, tension leg platforms, submersible platforms, semi-submersible platforms, well intervention platforms, and drillships.

As concerns claim 9, Cunningham shows the floating platform is a dedicated floating production facility (col. 1, lines 15-21).

As concerns claims 10-14, Cunningham shows tension risers terminate at the dry tree on the floating platform and at a distal end of the floating platform with a pontoon structure of the floating platform or on a single side of the floating platform and a dry tree ().

As concerns claim 16, Cunningham shows the variable tension risers include a rope and ballast line attachment point (figs. 3a-3f).

As concerns claims 17 and 19, Cunningham shows the variable tension risers include a stress joint with the subsea well proximate to a connection and platform respectively (fig 3a).

As concerns claims 22 and 24, Cunningham shows anchor lines/control lines 92 the variable tension risers to a seafloor restrict movement of the variable tension riser.

As concerns claim 23, Cunningham shows single tubing casing risers (fig 2).

As concerns claims 22 and 24, Cunningham shows a linking mechanism 50 to link at least two variable tension risers together and links adjacent variable tension risers together in the first tension region comprising of rope.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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11. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cunningham 6,062,769 alone.

As concerns claims 2-4, wherein the depth of water is greater than 4,000 feet or less than 15,000 feet or less than 10,000 feet, it would have been an obvious matter of design choice to modify Cunningham to include the ranges of depth since applicant has not disclosed that these ranges solve any particular problem or purpose and it appears other similar ranges would work equally well. Furthermore, routine experimentation would lead one of ordinary skill in the art to these ranges.

As concerns claims 5-6, Cunningham does shows an offset but does not show the plurality of subsea wells is characterized by a maximum offset less than or equal to one half the depth from the surface of the body of water or a maximum offset greater than or equal to one tenth the depth from the surface of the body of water, it would have been an obvious matter of design choice to modify Cunningham to include the ratio since applicant has not disclosed that these ranges solve any particular problem or purpose and it appears other similar ratios would work equally well. Furthermore, routine experimentation would lead one of ordinary skill in the art to these ranges.

Allowable Subject Matter

12. Claims 15, 18, 20, 21 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. Claims 43-54 are allowed.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Beach whose telephone number is 571.272.6988. The examiner can normally be reached on Monday-Friday, 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Will can be reached on 571.272.6998. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Thomas A. Beach

October 2, 2006

THOMAS A. BEACH
Primary Examiner
Group 3600